CLAIMS:

What is claimed is:

1. A method of controlling access to computer system resources based on permissions, comprising:

receiving a request for access to a computer system resource;

determining if a superclass permission of a required permission is present in each protection domain of an access control context;

adding the required permission to a permission collection if the superclass permission of the required permission is present in each protection domain of the access control context; and

granting access to the resource if the superclass permission of the required permission is present in each protection domain of the access control context.

2. The method of claim 1, wherein the request is received from bytecode.

3. The method of claim 1, further comprising:

determining the required permission based on a CodeSource associated with the request; and

determining the superclass permission of the required permission based on the required permission.

4. The method of claim 1, wherein determining if a superclass permission of a required permission is present in each protection domain includes determining if at least one permission collection in each protection domain includes the superclass permission.

5. The method of claim 1, wherein adding the required permission to a permission collection includes creating a new permission collection and adding the required permission to the new permission collection.

6. The method of claim 5, wherein adding the required permission to a permission collection further includes adding any subclass permissions of the required permission to the new permission collection.

7. The method of claim 1, further comprising retrieving the access control context for a thread of execution that sent the request for access to the computer system resource.

8. The method of claim 1, wherein adding the required permission to a permission collection includes adding the permission to a permission collection associated with the superclass permission.

9. The method of claim 1, wherein the steps of determining if a superclass permission of a required permission is present in each protection domain of an access control context, and adding the required permission to a permission collection if the superclass permission of the required permission is present in each protection domain of an access control context are performed by a method called by the required permission in response to an implies method operating on the required permission.

10. The method of claim 3, wherein the steps of determining the required permission based on a CodeSource

associated with the request and determining the superclass permission of the required permission based on the required permission are performed based on a security policy file.

11. A computer program product in a computer readable medium for controlling access to computer system resources based on permissions, comprising:

first instructions for receiving a request for access to a computer system resource;

second instructions for determining if a superclass permission of a required permission is present in each protection domain of an access control context;

third instructions for adding the required permission to a permission collection if the superclass permission of the required permission is present in each protection domain of the access control context; and

fourth instructions for granting access to the computer system resource if the superclass permission of the required permission is present in each protection domain of the access control context.

12. The computer program product of claim 11, wherein the request is received from bytecode.

13. The computer program product of claim 11, further comprising:

fifth instructions for determining the required permission based on a CodeSource associated with the request; and

sixth instructions for determining the superclass permission of the required permission based on the required permission.

14. The computer program product of claim 11, wherein the second instructions for determining if a superclass permission of a required permission is present in each protection domain include instructions for determining if at least one permission collection in each protection domain includes the superclass permission.

15. The computer program product of claim 11, wherein the third instructions for adding the required permission to a permission collection include instructions for creating a new permission collection and instructions for adding the required permission to the new permission collection.

16. The computer program product of claim 15, wherein the third instructions for adding the required permission to a permission collection further include instructions for adding any subclass permissions of the required permission to the new permission collection.

17. The computer program product of claim 11, further comprising fifth instructions for retrieving the access control context for a thread of execution that sent the request for access to the computer system resource.

18. The computer program product of claim 11, wherein the third instructions for adding the required permission to a permission collection include instructions for adding the permission to a permission collection associated with the superclass permission.

19. The computer program product of claim 11, wherein

the second and third instructions are part of a method called by the required permission in response to an implies method operating on the required permission.

20. The computer program product of claim 13, wherein the fifth and sixth instructions are executed based on a security policy file.

21. An apparatus for controlling access to computer system resources based on permissions, comprising:

means for receiving a request for access to a computer system resource;

means for determining if a superclass permission of a required permission is present in each protection domain of an access control context;

means for adding the required permission to a permission collection if the superclass permission of the required permission is present in each protection domain of the access control context; and

means for granting access to the computer system resource if the superclass permission of the required permission is present in each protection domain of the access control context.

22. The apparatus of claim 21, wherein the request is received from bytecode.

23. The apparatus of claim 21, further comprising:

means for determining the required permission based on a CodeSource associated with the request; and

means for determining the superclass permission of the required permission based on the required permission.

24. The apparatus of claim 21, wherein the means for determining if a superclass permission of a required permission is present in each protection domain includes means for determining if at least one permission collection in each protection domain includes the superclass permission.

25. The apparatus of claim 21, wherein the means for adding the required permission to a permission collection includes means for creating a new permission collection and means for adding the required permission to the new permission collection.

26. The apparatus of claim 25, wherein the means for adding the required permission to a permission collection further includes adding any subclass permissions of the required permission to the new permission collection.

27. The apparatus of claim 21, further comprising means for retrieving the access control context for a thread of execution that sent the request for access to the computer system resource.

28. The apparatus of claim 21, wherein the means for adding the required permission to a permission collection includes means for adding the permission to a permission collection associated with the superclass permission.

29. The apparatus of claim 21, wherein the means for determining if a superclass permission of a required permission is present in each protection domain of an access control context, and the means for adding the required permission to a permission collection if the

superclass permission of the required permission is present in each protection domain of an access control context operate based on a method called by the required permission in response to an implies method operating on the required permission.

30. The apparatus of claim 23, wherein the means for determining the required permission based on a CodeSource associated with the request and means for determining the superclass permission of the required permission based on the required permission operate based on a security policy file.